

A small local boy observed the bird at 11 a.m. hopping on the ground under the trees which were 10 m tall. He shot the bird with a sling-shot and brought it to Mr. S. Pohlstrand, Addis Ababa, who kindly prepared the specimen and presented it to the Biology Department (Natural History Museum), Haile Sellassie I University, Addis Ababa. The specimen is a male (gonads "very small"; immature?) with culmen 22 mm; wing 122; tarsus 34; rectrix 34.

The record, the first for the species in Ethiopia (Urban and Brown, in press), is either that of a vagrant or is representative of a considerable extension in range. Benson and Irwin (1964) point out that the species is a long-distance migrant, breeding south of 8° S and migrating north to the vicinity of the equator in East Africa and to about 4° N in the Congo from April to September. These authors note that in East Africa the African Pitta has been recorded from Nairobi and Limuru in Kenya and Budongo, Bugoma, Mabira and Mulema in Uganda.

The Ethiopian specimen, therefore, extends the non-breeding range in eastern Africa approximately 900 km northward to approximately 9° N.

References:

- Benson, C. W. & Irwin, M. P. S. 1964. The migrations of the Pitta of Eastern Africa (*Pitta angolensis longipennis* Reichenow). *N. Rhodesia J.*, V (5): 465-475.
Urban, E. K. & Brown, L. H. In press. *A checklist of the birds of Ethiopia*. Haile Sellassie I University Press, Addis Ababa.

Further notes on the Spike-heeled Lark *Chersomanes albofasciata* in East Africa

by J. S. S. Beesley

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Since discovering this bird in November 1965 in the Asogati (Kingerete) plain 30 miles north of Arusha, Tanzania (Benson, 1966), I have searched all the grass plains within a seventy mile radius of Arusha and have found it on only one other locality. This is a sloping plain between 4,800 and 5,100 feet above sea-level six miles west of Oldonyo Sambu village, which is 20 miles north of Arusha. This locality is ca. 12 miles from the Asogati plain. Both habitats are precisely the same regarding the soil and formation of grassland, and in detail dissimilar from all the other grass plains examined. In view of the bird's apparent rarity and its confinement to this very particular biotope, I now describe the habitat in detail.

The plains are situated to the north of Mt. Meru at an altitude between 4,500 and 5,100 feet above sea-level. The rainfall is very light, occurring only for a few days during the short and long rains of October-December and March-April. During the rest of the year very strong winds scour the area. The soil is calcimorphic, light and shallow, overlying a calcareous hard-pan, allowing only the development of an edaphic grassland. The grass is short with a leaf-table at 5-8 cm and culms rising to ca. 40 cm. Its coverage is about 50% and it grows in the form of cushions some 20-30 cm across, surrounded by wind-eroded channels of bare, hard, generally stoneless soil. These channels or lanes are used by the larks as pathways, along which they run, and may be important, for this fast-running bird does not frequent grassland lacking these channels or with large open areas between the grass cushions. The dominant grasses are *Digitaria macroblephara*, *Eustachys paspaloides*, and *Sporobolus marginatus*, also occurring are *Dactyloctenium* sp., and *Cyperus* spp. Other plants commonly

found are *Indigofera* sp., *Ipomea longituba*, *Monodenium* sp., *Ramphicarpus* sp., and *Dipcadi viride*. Other birds breeding in the area are few, namely, *Mirafr africana*, *Calandrella rufescens*, *Calandrella cinerea*, *Anthus novaeseelandiae* and *Oenanthe pileata*.

Breeding of the Spike-heeled Lark takes place after the first few showers of rain. Two nests were found. The first, on 15th April 1967, was situated in a flat plain, and contained two large, well-feathered young who filled the nest. The parents were feeding them with insects, and executed a bouncing approach flight, uttering a repeated twanging chirp. The second nest was found on 7th November 1967 and was situated somewhat in the lee of the prevailing wind at the base of a low hill, and contained two fresh eggs. Both nests were shallow cups of dead grass, lined with coarse dead grass leaves and small scraps of cow-dung. The eggs, measuring 21.5 mm × 15 mm, were off-white, the whole surface speckled with fine irregular spots of dull brown and purplish grey, with occasional slightly larger, light brown blotches, and zoned at the larger end. On 17th May 1967 two pairs were seen feeding fledged young with caterpillars. These latter two breeding dates agree with Benson & Forbes-Watson (1966).

When not breeding, the birds are found mainly in two's and three's, but sometimes in parties of up to ten. In 47 recorded sightings of this species, I have only seen singletons twice, which seems to indicate they they remain in pairs throughout the year or are somewhat gregarious.

References:

- Benson, C. W. 1966. The Spike-heeled Lark *Chersomanes albofasciata* in East Africa. *Bull. Brit. Orn. Cl.* 86: 76-77.
Benson, C. W. & Forbes-Watson, A. D. 1966. A further note on the Spike-heeled Lark *Chersomanes albofasciata* in East Africa. *Bull. Brit. Orn. Cl.* 86: 172-173.

Nasal glands in *Cinclodes nigrofumosus*, a maritime passerine by Raymond A. Paynter, Jr.

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The furnariid *Cinclodes nigrofumosus* is a resident of rocky areas on the coast of Peru and Chile. Its behaviour resembles that of a shorebird, particularly the Surf-bird (*Aphriza virgata*), as it feeds among rocks and in sand, dodging waves and spray while calling loudly above the noise of the pounding breakers. For most of its range the species occurs at the edge of the rainless coastal desert, where the only source of water is the sea. Its maritime existence even exceeds that of most shorebirds, for it builds its nest of marine algae in crevices of rocks close to the water (Tovar, 1968).

As is now well known, most seabirds are able to tolerate a high salt intake by extrarenally excreting excess sodium chloride in a highly hypertonic solution by means of the paired nasal glands, which are enlarged and function as the so-called "salt glands". Some passerine birds, as for example a salt marsh race of the Savannah Sparrow, *Ammodramus sandwichensis beldingi*, are also capable of existing on sea water. However, as far as is known, no passerine has a functional salt gland; those species subject to heavy salt loads seem instead to rely on the kidneys, and possibly the gut and cloaca, to produce urine with a chloride concentration far in excess of that which can be excreted by species not normally exposed to saline water (Poulson and Bartholomew, 1962; Cade, 1964).

On a recent visit to Peru I observed *Cinclodes nigrofumosus* very briefly but long enough to appreciate that it is almost certainly the most maritime of all passerine birds. It occurred to me that if functional salt glands do exist among